



Advanced temperature control and stability

# Lab Companion Vacuum Ovens

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## Model: OV4



OV4-30

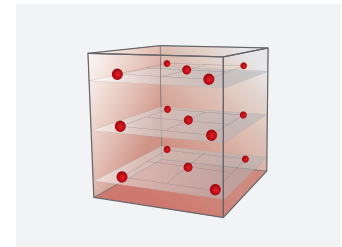


OV4-65

### Why choose Lab Companion vacuum oven?

#### Precise temperature control

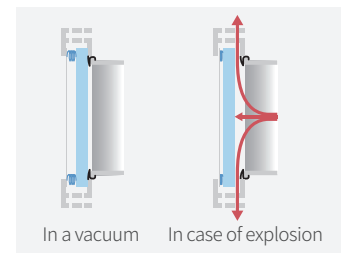
- Temperature variation up to  $\pm 1.5^{\circ}\text{C}$  at  $100^{\circ}\text{C}$  according to DIN 12880:2007 standard.
- Actual experiment area is expanded by realizing excellent temperature uniformity.
- Conforms to the conditions for loss on drying defined in the Korean Pharmacopoeia.



Variation less than  $\pm 1.5^{\circ}\text{C}$  at  $100^{\circ}\text{C}$

#### Structure design for user safety

- Stable vacuum formation and maintenance by applying a buffer system on the front part of the door. In case of an internal explosion, the internal pressure is discharged through the upper and lower exhaust ports.
- Apply Safety Cover to protect the user in case of broken tempered glass.
- The equipment surface is safe even at the highest temperature running to prevent burns when viewing the inspection window.



Door Buffer System

#### User-friendly controller & space efficiency

- 5-inch color touch display for intuitive operation.
- Test data is automatically saved and easily downloaded via USB; easy to edit and use. (in CSV format) (except for OV4-30S/65S)
- Real-time graphs that allow users to view events and alarms at a glance so that the test progress can be easily and intuitively monitored. (except for OV4-30S/65S)
- By selecting the ramp rate ( $^{\circ}\text{C}/\text{min}$ ), you can limit the speed of temperature rise when using. (except for OV4-30S/65S)

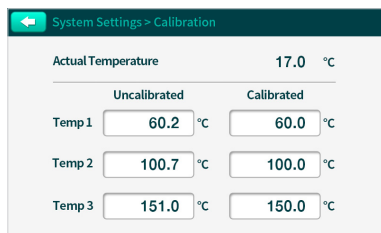


Intuitive color touch controller

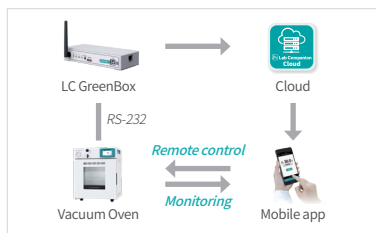


## Main feature

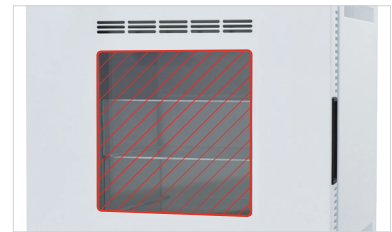
- Wide temperature range that can be controlled up to 250°C.
- 3-point temperature calibration improves temperature accuracy in the entire area.
- BMS communication port that helps monitor the device temperature on the building management system, enabling quick response in case of abnormality.
- Monitor and control via mobile app anytime, anywhere through LC Connected. (mobile monitoring system) (Option)
- Polycarbonate safety cover provided to protect a user in case of tempered glass breakage.
- Useful for feedback of the experiment result by recording the recent events such as door open and error.
- Silicone gasket (basic) or viton gasket (option) for high sealing rate. (Viton gasket with excellent chemical resistance)



3-point calibration for accurate data



Mobile monitoring system



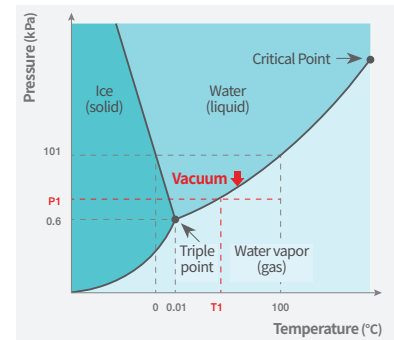
Polycarbonate safety cover

## When dry in a vacuum?

Vacuum drying is used to dry samples which can be deformed when drying at high temperatures, maintaining original shape, or to dry faster than standard ovens.

When the pressure is reduced with a vacuum pump, the vaporization proceeds at a temperature lower than the boiling point of water, allowing drying at a lower temperature than normal drying conditions.

For example, if the pressure is reduced to the pressure of 'P1' in the graph on the right, the phase changes to water vapor at the temperature of 'T1', which is lower than the boiling point.



Vapor pressure curve

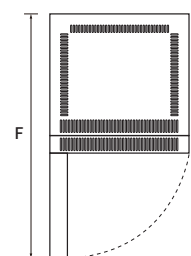
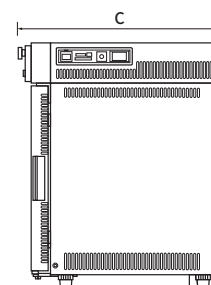
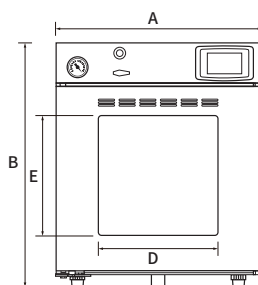
- Moisture removal from food such as dairy products.
- Moisture removal from sensitive products such as electronics.
- Drying process for the prevention of oxidation.
- Removing residual moisture to relieve capillary action.
- Defined heating protocols with temperature ramping under vacuum.



## Dimensions

(Unit: mm / inch)

Model	OV4-30	OV4-65
A	537 / 21.1	636 / 25.0
B	655 / 25.8	755 / 29.7
C	522 / 20.6	622 / 24.5
D	270 / 10.6	359 / 14.1
E	270 / 10.6	370 / 14.6
F	1009 / 39.7	1208 / 47.6



## Specifications

Model		OV4-30	OV4-30S*	OV4-65	OV4-65S*
Control panel		5 inch	3.5 inch	5 inch	3.5 inch
Chamber volume (L / cu ft)		28 / 1		65 / 2.3	
Temperature	Range (°C / °F)	Amb. +15 to 250 / Amb. +27 to 482		Amb. +15 to 250 / Amb. +27 to 482	
	Variation at 100°C (±°C / °F)	1.5 / 2.7		1.5 / 2.7	
	Fluctuation at 100°C (±°C / °F)	0.2 / 0.36		0.2 / 0.36	
	Heating up time to 100°C (min.)	70		90	
Dimensions	Interior (W x D x H, mm / inch)	302 x 305 x 302 / 11.9 x 12 x 11.9		402 x 405 x 402 / 15.8 x 15.9 x 15.8	
	Exterior (W x D x H, mm / inch)	537 x 522 x 655 / 21.1 x 20.6 x 25.8		636 x 622 x 755 / 25.0 x 24.5 x 29.7	
	Net weight (kg / lbs)	69 / 152.1		110 / 242.5	
Shelves	Quantity of shelves (standard/max.)	2 / 3		3 / 4	
	Max. Load per shelf (kg / lbs)	20 / 44.1		20 / 44.1	
Material		Body: Stainless Steel, Shelf: Aluminum		Body: Stainless Steel, Shelf: Aluminum	
Electrical requirements (230V, 50 / 60Hz, A)		5.7		6.7	
Cat. No.		AAH13315K	AAH13335K	AAH13325K	AAH13345K
Electrical requirements (120V, 60Hz, A)		10.2		11.7	
Cat. No.		AAH13316U	AAH13336U	AAH13326U	AAH13346U

\*Some convenience features are excluded for OV4-30S, OV4-65S models. (real-time graphs, data storage, etc.)

## Accessories

Description		Cat. No.		Description	Position (OV4-30 <sup>3)</sup> )	Material	Cat. No.	
		OV4-30/30S	OV4-65/65S				OV4-30/30S	OV4-65/65S
Silicone Gasket	Basic bundle accessory. Silicon gasket for sealing the door.	00FAA0005146	00FAA0005147		Bottom shelf, Basic <sup>2)</sup>	Aluminum	AAA13519	AAA13520
						SS	AAA13529	AAA13530
Viton Gasket	High chemical resistance.	00FAA0005187	00FAA0005188		Extra shelf, Optional <sup>1)</sup>	Aluminum	AAA13511	AAA13513
						SS	AAA13521	AAA13523
LC GreenBox	Mobile connection adapter. Available real-time monitoring and control on Lab Companion mobile app.	AAAQ1011K	AAAQ1011		Lower shelf, Basic <sup>2)</sup>	Aluminum	AAA13517	AAA13518
						SS	AAA13527	AAA13528
				Upper shelf, Basic <sup>2)</sup>	Aluminum	AAA13512	AAA13514	
					SS	AAA13522	AAA13524	
				Shelf spacer, Basic <sup>2)</sup>	Aluminum	AAA13515	AAA13516	
					SS	AAA13525	AAA13526	

- 1) You can add an extra shelf that can be placed at the bottom to experiment with more samples same time, and the value of Variation and Fluctuation may increase slightly.
- 2) The shelf and shelf spacer are included as bundled accessories, and you can purchase when need to replace them.
- 3) For OV4-65 models, 2 upper shelves are basic provided.

